

REMARKS

Claims 1-12 were pending. Claims 13-17 have been added.

I. New Matter

The Examiner objected to the amendment under 35 USC 132 on the grounds that the amendment introduced new matter. Similarly, the Examiner rejected claims 1-12 under 35 USC 112, first paragraph, as containing subject matter not described in the specification. According to the Examiner, the subject matter not supported by the original disclosure is "the first trench electrically isolating elements of the microstructure from each other."

The Examiner's attention is directed to page 9, lines 20-25, which states "In addition, isolation trench 18 electrically isolates the microstructure elements in structure region 14 from each other. For example, because they project from different portions of the isolation trench, stationary electrodes 30a are electrically isolated from stationary electrodes 30b and from proof mass 24."

Applicant respectfully requests that the objection under 35 USC 132 and rejection under 35 USC 112, first paragraph, be withdrawn.

II. Prior Art

Claims 1-12 stand rejected as obvious over U.S. Patent No. 5,747,353 ("Bashir") in view of U.S. Patent No. 4,631,803 ("Hunter").

Claim 1 calls for etching a first trench in a device layer to surround a first region of a substrate. A dielectric isolation layer is formed in the trench to electrically isolate the first region from a second region of the substrate. A second trench, located in the first region, is etched in the device layer and defines a microstructure. The first trench electrically isolates elements of the microstructure from each other.

Bashir et al. does not disclose the claimed method. Rather, in Bashir et al., the sidewalls of an anchor trench 121 are oxidized to produce a 500 to 3,000 angstrom thick oxide layer on the sidewalls and bottom of the trench. However, the trench 121 is then subjected to an RIE etch process to remove the portion of the oxide layer on the bottom of the trench. This is done so that the polysilicon which will be grown in the trenches in a later step can directly contact the

substrate 102. Col. 5, lines 26-29. In another step, the polysilicon 122 filling the trenches 120 on each side of the central silicon region is removed, and the buried oxide layer is etched to define movable electrode 142 and fixed electrode 144 (see col. 6, lns. 45-48; col. 6, ln. 59 to col. 7, ln. 5).

The resultant structure, as shown in Fig. 10 of Bashir, provides that elements 142 and 144 are actually one in the same element. (The same unbroken polygon with the same shading.) Thus, these elements are electrically connected to each other.

Hunter does not provide what Bashir lacks. Hunter discloses forming a sidewall oxide on the sidewalls of a trench (see col. 2, lns. 48-49). However, Hunter does not disclose using the isolation trench to electrically isolate elements of a microstructure from each other.

Since neither Bashir nor Hunter discloses using the first trench to electrically isolate elements of a microstructure from each other, the combination of the Bashir and Hunter cannot render claim 1 obvious.

In view of the foregoing, it is submitted that all the claims are now in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicant's undersigned attorney at (650) 839-5070.